

No 708

SEAMEN'S



PROTECTION

J. B. C.

I, Samuel P. Redfield Collector of the District of New-York, do hereby
Certify, that Francis C. Otis an
AMERICAN SEAMAN, aged 24 years, or thereabouts, of the height
of 5 feet, 10 inches, Brown hair, Light complexion,

Born in Brunswick State of Maine
has this day produced to me proof in the manner directed by the Act entitled "An Act
for the Relief and Protection of American Seamen;" and pursuant to the said Act, I do
hereby Certify, that the said Otis is a
CITIZEN OF THE UNITED STATES OF AMERICA.

In Witness whereof, I have hereunto set my Hand and Seal of office,
this 5 day of November 1855

Collector.

Bath Dec 10th 73

Capt F. C. Os

Sir:

We recd from Capt A. C. Os,
 letter informing us of your being
 ready to sail the 22nd with a new
 copy of your op. in N. Orleans.
 Hop you will have a fair
 passage over. Freight, has fallen
 again since you left and are
 now $\frac{3}{4}$ to Liverpool though the
 low rates of exchange operate badly
 against shipping. We think you
 had better go direct, to a cotton
 port in ballast unless you hear
 from us to the contrary or something
 of advantage to the Bank should
 turn up. Hop you will have

your dispatch to a te pr
Ann in your season for a
spring freight. Thank you

Yours Respectfully
J. V. Moore & Son

PORTAGE BILL of the

Barclay Row

to

New Orleans

Geo. Ellis & Brother, Stationers and Printers, 82 Camp St. New Orleans.

NAMES.	STATION.	ENTERED.	DISCHARGED.	DURATION OF SERVICE. Mos. Days.		RATE OF WAGES.	TOTAL AMOUNT OF WAGES.	ADVANCE Bos.
J. A. Patton	Mate	Aug 17	Feb 28	7	—	\$30 00	\$330 00	12
John Kenny	2nd Ds	Dec 24	" 25	2	2	30 00	62 00	
Peter Moxell	Cook	July 29	" 28	7	2	45 00	318 00	90
Peter Burns	Seaman	Oct 21	" 25	4	5	30 00	125 00	
A. Masterson	"	" 14	" "	4	17	30 00	137 00	
Thomas Russell	"	" 21	" "	4	6	30 00	126 00	
Peter Jacobsen	"	" 15	" "	4	16	30 00	136 00	
H. O. Tollarsen	O L	" 21	" "	4	5	25 00	104 17	
James O. Phillips	"	Aug 16	" "	6	10	25 00	158 33	
Coort Frost	"	Oct 21	" "	4	5	20 00	83 33	
James Sweeney	"	Dec 26	" "	2	—	15 00	30 00	
Dan O'Neil	"	" "	" "	2	—	15 00	30 00	
Olof Jasmann	"	" "	" "	2	—	15 00	30 00	
Gustav Gallow	Cabin Boy	Oct 13	" "	4	18	10 00	46 00	

24 *City* Master, from *Boston & Havre*
 1874
 25th February 1874.

ADVANCE AT	ADVANCE AT	ADVANCE AT	ADVANCE AT	HOSPITAL MONEY.	AMOUNT DUE.	SIGNATURES.
<i>to N. Orleans</i>	<i>to Havre.</i>					
20 00			32 37	2 80	282 37	
	4 00		33 60	80	23 60	
35 00			46 74	2 80	143 46	
50 00	2 00		12 29	1 60	59 11	
50 00	2 00		2 10	1 80	81 10	
50 00	3 00		9 39	1 70	61 91	
50 00	2 00		1 15	1 80	81 05	
35 00			8 34	1 60	59 23	
25 00			20 64	2 60	110 09	
30 00	2 00		7 10	1 60	42 63	
	2 00		22 40	80	4 80	
	3 00		22 40	80	3 80	
	2 00		22 40	80	4 80	
50 00			16 68	1 80	22 52	
					1020 60	

to Liverpool.

ROSS, SKOLFIELD & CO., 9, Chapel Street, Liverpool.

Robt Wilson

Bath May 2^d 1879
 Capt F. C. Otis
 Charleston
 S. C.

Mr. Strick, telegraphed
 us yesterday that they were offering
 8000 for the Rome. We replied
 try for nine car if you cannot
 get it take eight. They have
 just replied that they had
 closed for eighty five hundred
 cars. We shall send a special
 soon as we get the particu-
 lars and you will write
 up and get away as soon
 as you can after you get
 settled up in the mean time
 keep all expenses as low as
 possible and save all you
 can. There will be quite a

Will to come out of the parcels
Let us know by telegraph if
any information wanted. Keep
all expenses as low as possible
and make best trade you can
above cost of the sale - It
will be a few days before we
can get the B. Sale sent -

Yours Respectfully
W. V. Moore & Sons

The stores above sell them but
 don't go with the sale of Bank.
 you can take ~~your~~ guns out if you
 wish —

Beth May 9th 1879

Capt. J. C. Otis

Charleston

Drops;

We have been delayed
 in getting the papers concerning
 the sale of the Home ready
 as we found that there had
 been a new registration out
 in New York when your brother
 bought a part of his and we
 had to send there for a copy.
 We include to day the Receipts
 and also Certificate from Custom
 House here that there are no liens
 or mortgages on this property and
 also Certificate of the Probate
 Court as to the administration on
 the estate of Mr W. V. Massey
 which we think is all that

is necessary. Miss Street has
wrote us that on account of
the long delay of the Rems
in Charleston they should make
us charge for commission unless we
should be willing to allow them
a small amount. You can fix
this up with them. Can't afford
much at such a price. We
want you to hurry up the
settlement and get back & soon
as you can let us know & soon as
the thing is settled so that we can
stop insurance. We want you to have
your bills all ready & we want
to close up the Rems of as soon
as we can. You will judge
what belongs to the Bank in the
sale.

Yours Respectfully
W. V. Moss & Son

Bath May 16/79

Capt J. E. Otter
Charleston

Dear Sir

Yours of the 12th
 recd also one from Miss
 Stud same day. We enclose
 the papers required and
 the Certificate dated that the
 Custom House omitted in the
 sum, for the mail. You will
 find Certificate of there being
 no lien or other claim also
 License to sell from the
 Probate Judge and Certificate
 given of Attorney. As
 regard to the stores we are
 told that they do not go with
 the vessel. However the amt

is small and he will not
stand about them. We know
the price is low & you state
but we suppose you and
Miss Stuart would do the
best you could for our intent
If you had intimated to us
that there was a prospect of
getting more or that we
would do better by waiting
should have done so. We hope
now that you can get
settled up immediately. Please
let us know as soon as
everything is fixed up and
you have the pay for her
expenses. Are running on all
the time.

Yours Respectfully
W. V. Moore & Son

1875.

BUCKLEY & MERRITT,

DEALERS IN

Ship Fixtures, Pumps, &c.

Capstans, Windlasses, Steerers, Winches, Steering
 Wheels, Iron and Brass, Lift and Force, Main and
 Deck Pumps, Steel Amalgam Bells, Rubber,
 Leather and Suction Hose, Belting,
 Packing Gaskets, Coupling
 Pipes, Wrenches, &c.,

AGENTS FOR

RUMSEY & CO'S,

Seneca Falls, Pump and Fire Engine Works.

156 South Street,

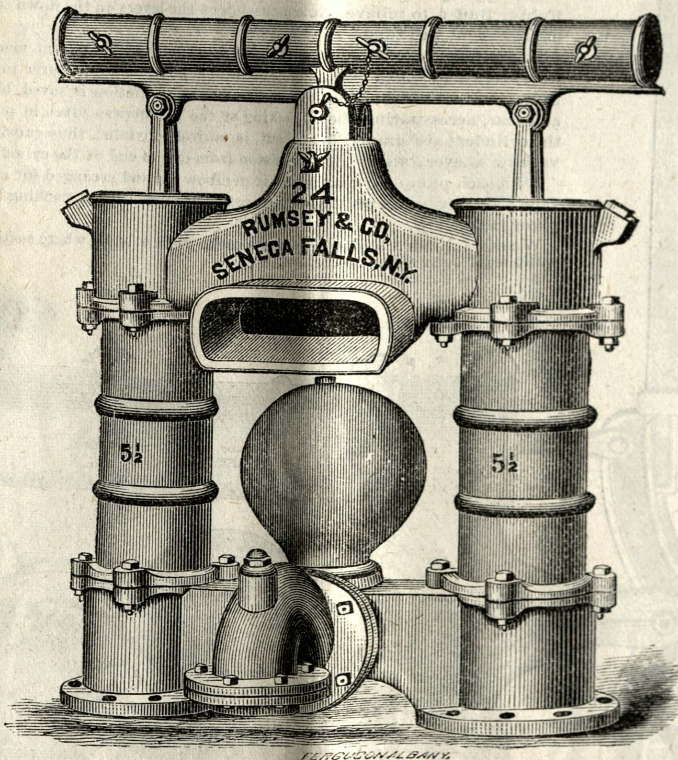
Between Peck Slip & Dover St.,

New York.*Special attention given to Repairing.*

EAGLE SHIP PUMP.

For Pumping Out the Bilge of Vessels,

PATENTED AUG. 18, 1874.



This Pump will not Choke with Molasses or Sugar Drainings, often found in the Bilge of Vessels.

To vessel and ship owners of this and other countries, who have for years felt the want of a Bilge Pump constructed in such a manner that its parts, when taken separately or combined could be easily understood and operated. The great demand for Pumps used on vessels and ships has brought into use many a worthless pump, and hundreds now *non-existing*, made not only through ignorance of mechanical proportion, but in such a frail, loose and unworkman like manner that they were virtually condemned the first day of their practical existence. The Pump above illustrated and described, we will stake our reputation on as manufacturers of pumps for the past thirty years, and we believe them to be the best and most thoroughly substantial Bilge Pump made.

The upper and lower boxes are made of brass. The drop bucket, or lower box, is incased in a brass chamber, or reservoir, thus preventing rusting, and always *primed*.

The lugs and bolt holes on the cylinder and upper section of the pump are so arranged that the spout piece can be changed, or reversed, so that the water can be discharged on either side of the pump,

The base of the pump has a broad surface, and when bolted to the deck of the vessel remains firmly in its place while being worked.

By removing the king pin which holds the lever in its place, both plungers, or working boxes, can be lifted out of the cylinders, and by inserting the hand or an iron hook into the cylinders the lower valve, or drop box, can be removed and put back in its place without difficulty.

EAGLE SHIP PUMP. EXTENSION BRAKES FOR 2, 4 OR 6 MEN.

Aug. 18, 1874.

Patented

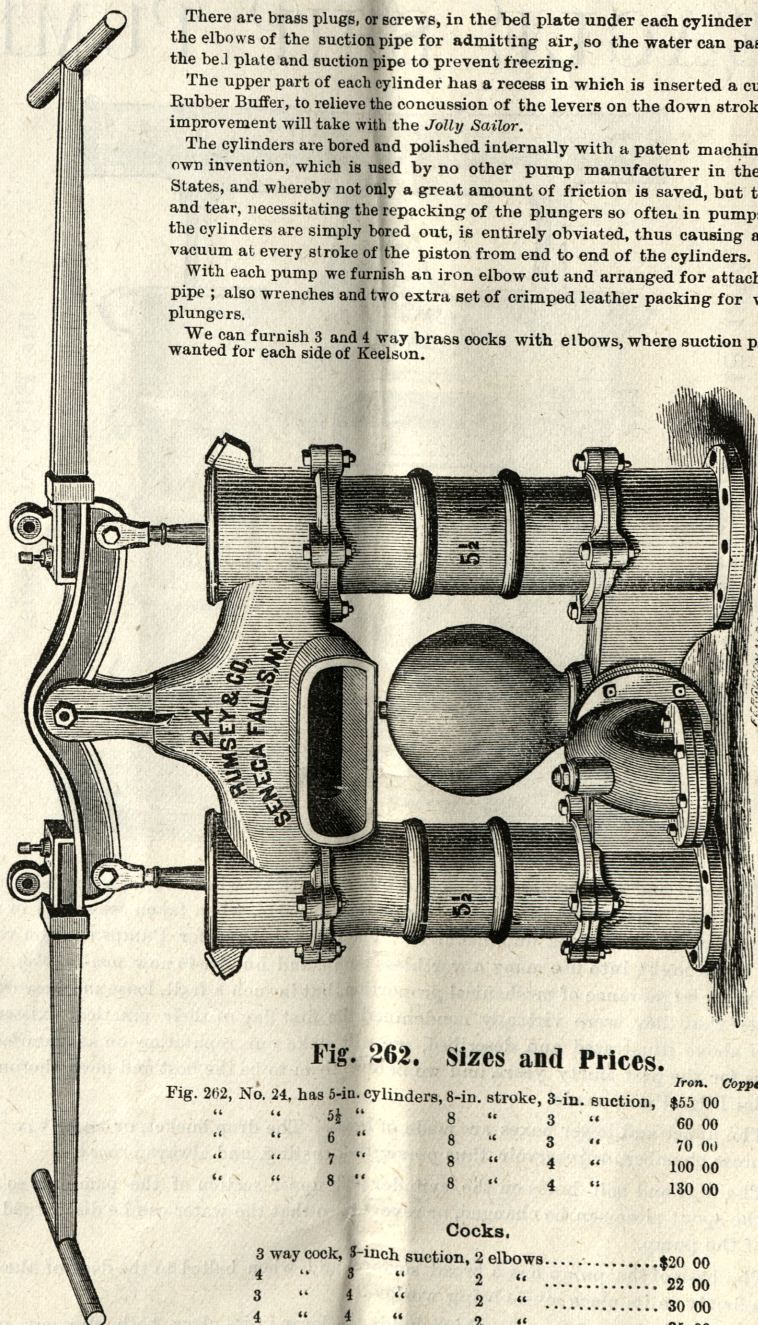


Fig. 262. Sizes and Prices.

						Iron.	Copper Lined.
Fig. 262, No. 24, has 5-in. cylinders, 8-in. stroke, 3-in. suction,						\$55 00	\$75 00
"	"	5½	"	8	3	60 00	80 00
"	"	6	"	8	3	70 00	90 00
"	"	7	"	8	4	100 00	125 00
"	"	8	"	8	4	130 00	160 00

Cocks.

3 way cock, 3-inch suction, 2 elbows.....	\$20 00
4 " " 3 " " 2 "	22 00
3 " " 4 " " 2 "	30 00
4 " " 4 " " 2 "	35 00

Pumps can be arranged with extension brakes, to be worked by two, four or six men, at an extra price of \$5.00.

There are brass plugs, or screws, in the bed plate under each cylinder; also in the elbows of the suction pipe for admitting air, so the water can pass out of the bed plate and suction pipe to prevent freezing.

The upper part of each cylinder has a recess in which is inserted a cushioned Rubber Buffer, to relieve the concussion of the levers on the down stroke. This improvement will take with the *Jolly Sailor*.

The cylinders are bored and polished internally with a patent machine of our own invention, which is used by no other pump manufacturer in the United States, and whereby not only a great amount of friction is saved, but the wear and tear, necessitating the repacking of the plungers so often in pumps, where the cylinders are simply bored out, is entirely obviated, thus causing a perfect vacuum at every stroke of the piston from end to end of the cylinders.

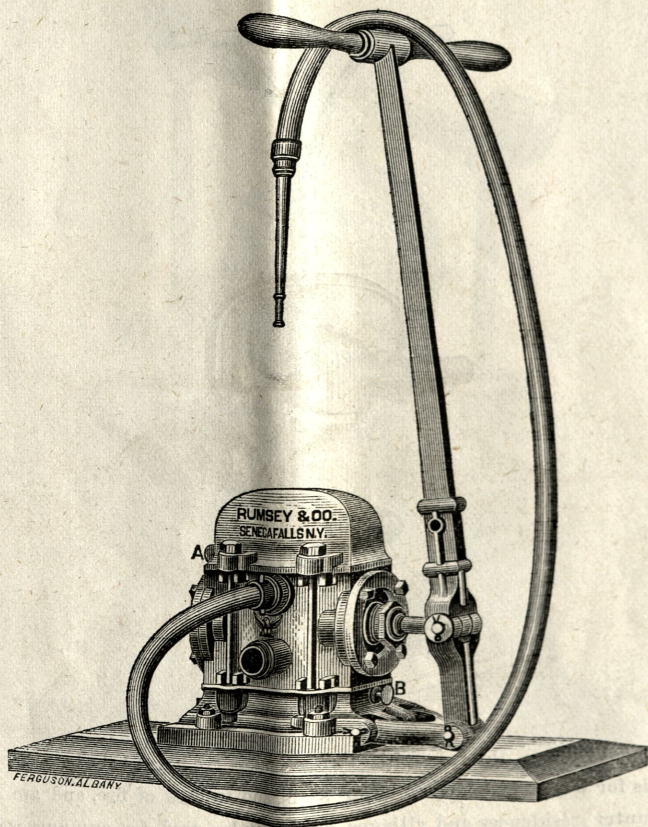
With each pump we furnish an iron elbow cut and arranged for attaching gas pipe; also wrenches and two extra set of crimped leather packing for working plungers.

We can furnish 3 and 4 way brass cocks with elbows, where suction pipes are wanted for each side of Keelson.

NEW STYLE Horizontal Double-Acting Ship Pump,

For Washing off Decks, Wetting Sails, Extinguishing Fires, &c.

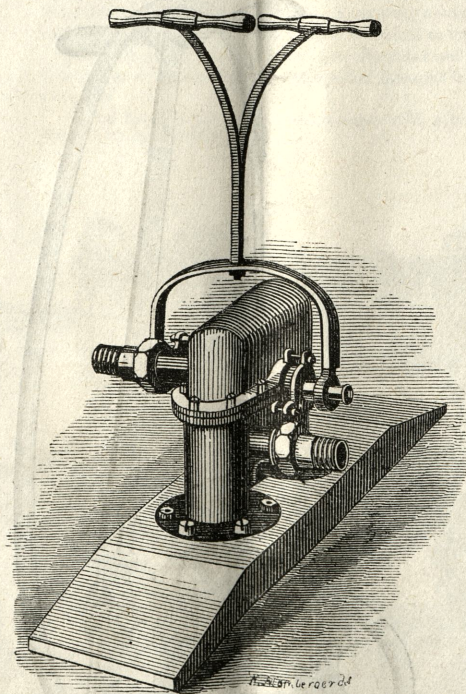
Figure 275.



The above cut represents a Horizontal Double Acting Ship Pump. The cylinders are *cop- per lined*. The piston rod, valves and valve seats are made of bronze or gun metal. There are brass screws or plugs, for letting out the water to prevent freezing; also to prime the pump when necessary. By removing the brass nuts at the top of the four connecting rods, the air chamber and pump cylinder can be taken from the bed piece, thus giving free access to the upper and lower set of valves. By the principle of atmospheric pressure in connection with the large air chamber, water can be thrown by the power of one or two men, through a $\frac{3}{4}$ -inch nozzle, from 60 to 80 feet horizontally; thus not only making a first-rate suction and lift pump, but a reliable fire engine.

No. 34, 4-in. bore, 5-in stroke, $1\frac{1}{2}$ -in. suction, $1\frac{1}{4}$ -in discharge	\$28 00
" 34 6 " 5 " $2\frac{1}{4}$ " $1\frac{1}{2}$ "	40 00

Double-Action BRASS FORCE PUMP.



Double action Engine Pumps, with two chambers, designed to be used principally on board of vessels for washing decks, wetting sails, and in case of fire, and are also admirably adapted to country residences and villages, and may be used for any purpose to which any other pump can be applied, either in the ordinary way, or for deep wells. They can be worked by hand, horse or steam power, and for simplicity and compactness cannot be excelled. They are capable of discharging from twenty-five to one hundred and twenty gallons of water per minute, according to the size of the pump, and number of strokes given.

Every part excepting the brakes, is of the best Brass.

No.	Diameter of Cylinder.	Diameter of Suction Hose.	Diameter of Leading Hose.	Price.
17	2½-inch	1¼-inch	1 or 1¼-inch	\$31 50
18	3	1½	1½ " 1½	53 50
18½	3½	1¾	1¾ " 1¾	75 00
19	4	2	1½ " 2	88 00
20	6	3	2½ " 3	140 00

Double-Acting Force Pump

For Steamboats, Factories, Private Dwellings, &c.

Fig. 151.

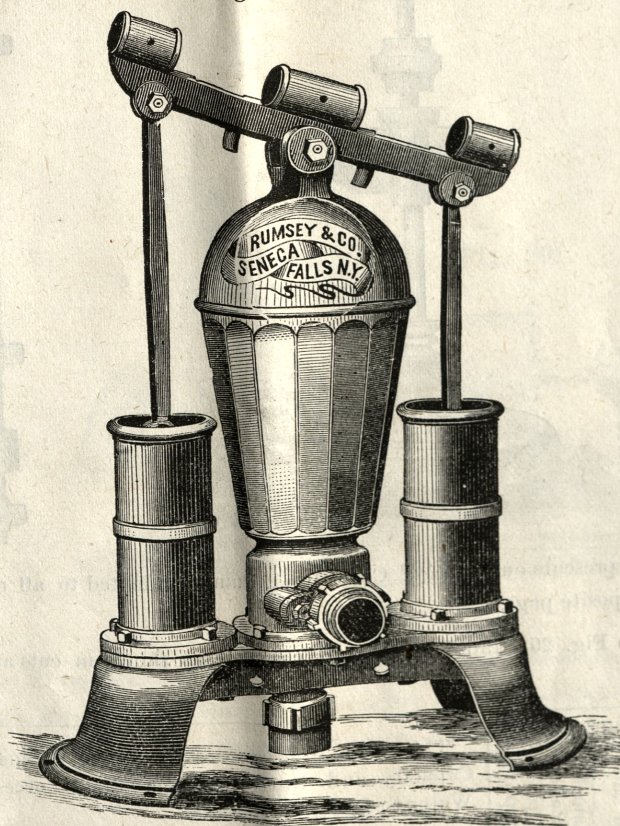


Fig. 151 represents our Double Cylinder Force Pump, constructed for use on board of Steamboats, Ships, and for Fire Purposes generally, where a cheap and reliable Pump is needed. Those who have buildings worth protecting should have one of these Pumps. They also make a first-class Tank Pump. Ordinarily we make them of Iron, but when a better class of Pump is required, we make the Cylinders of Brass. We make four sizes, as follows:

Sizes and Prices.

Fig. 151, No. 12, IRON CYLINDERS,	3 inch bore for pipes,	1½ & 1½ calibre.....	\$35 00
" " "	4 " "	2 & 2 "	40 00
" " "	5 " "	2½ & 2½ "	55 00
" " "	6 " "	3 & 3 "	75 00
Fig. 151, No. 12, BRASS CYLINDERS,	3 " "	1½ & 1½ "	45 00
" " "	4 " "	2 & 2 "	55 00
" " "	5 " "	2½ & 2½ "	80 00
" " "	6 " "	3 & 3 "	105 00

CENTRIFUGAL PUMPS.

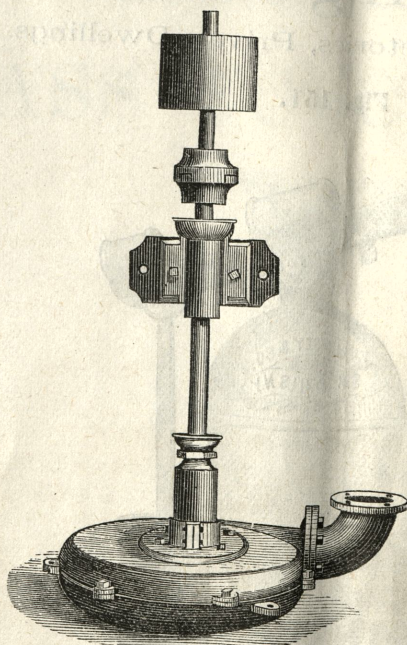
Vertical.
Fig. 202.

Fig. 203.



Fig. 202 represents our *Vertical Centrifugal Pumps*, adapted to all conditions mentioned on opposite page.

We furnish Fig. 201 and Fig. 202 all complete as shown in cuts at prices named below.

No.	Size of Dis-charge Pipe.	Capacity per minute.	Diameter of Pulley.	Face of Pulley.	REVOLUTIONS PER MINUTE.								PRICES.	
					6ft.	8ft.	10ft.	12ft.	15ft.	20ft.	25ft.	30ft.	Iron	Brass
2	1½	100	4	3	500	625	750	775	925	1200	1300	1700	\$24	\$48
3	2	350	5	4	400	450	500	550	650	800	900	1100	55	98
4	2½	500	6	5	350	400	450	500	600	750	850	1000	65	140
5	3	700	6	5	300	350	400	450	550	700	775	925	75	
6	4	1000	7	7½	250	300	350	400	500	650	700	850	100	
7	6	2500	10	8	200	250	300	350	400	475	550	650	150	
8	7	3000	10	9	200	250	300	350	400	475	550	650	200	
9	8	4000	12	10	180	235	280	330	375	440	510	600	240	

By INCREASING the SPEED above laid down, in any giving instance, the Pump will discharge MORE water, or raise it HIGHER.

Fig. 203 represents Extra Shafting, which we furnish to order at an extra charge.

CENTRIFUGAL PUMPS,

Horizontal.

Fig. 200.

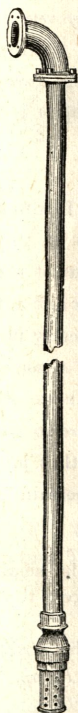


Fig. 201.

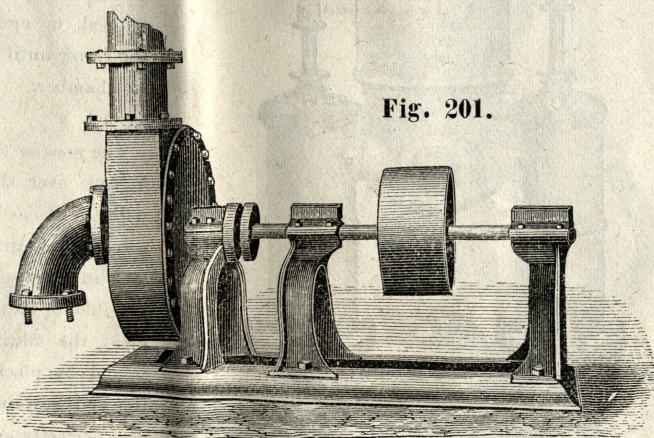


Fig. 201 represents our Horizontal Centrifugal Pump. Particularly adapted for Tanneries, Paper Mills, Distilleries, Breweries, Dry Docks, Coffor Dams, Steam Ships and all Works where large quantities of Coarse Material Grit or Sand are to be raised.

These Pumps are found to have no equal where large quantities of Coarse Material, Grit or Sand are to be raised. They have had the most sudden and permanent introduction—and are to be worth millions of dollars to the manufacturers of the country. Numbers of Tanneries, Paper Makers, and others using them, say that to be offered ten times their cost would be no temptation, if they could not replace them with the same kind.

For Capacity, Prices, &c., see opposite page.

Fig. 200 represents Suction Pipe with Elbow and Foot Valve, which we furnish when ordered at an extra charge. The Foot Valve should always be used with Suction Pipe on all Centrifugal Pumps.

TWO CYLINDER CLOSE TOP FORCE PUMP.

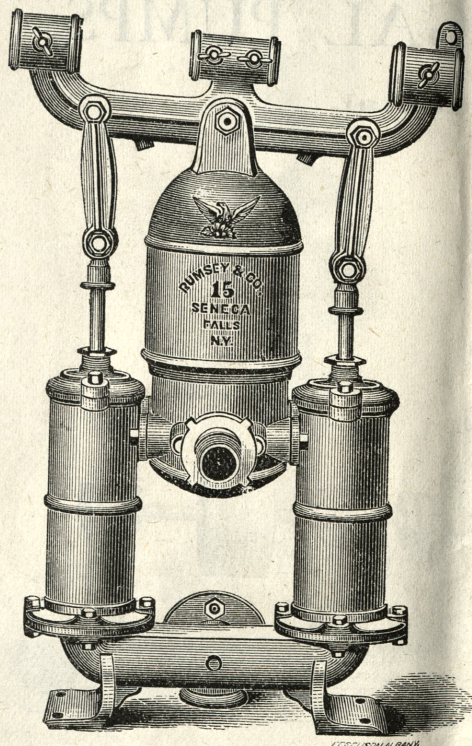


Fig. 261.

They are made with Brass cased Piston Rods, Brass Plungers, Valves, and Stuffing Boxes.

The Valve at the bottom of the Cylinder is double, and *entirely new* in its construction, and can be readily tripped, or opened, by pressing down the Lever until it strikes the top of the air chamber.

The *peculiar advantage* of this DOUBLE VALVE over the ordinary one is, that with the *Single Valve* the pressure of the column is so great as to make it difficult (and in Pumps of large size nearly impossible) to trip it; yet by this arrangement the additional leverage here obtained by placing a *small Valve* in the top of the *Main Valve*, renders that process perfectly easy and always certain.

By simply turning the cock at the bottom of the Air chamber, and tripping the small Valve at the bottom of the Cylinder, the water in the Pump is at once discharged, thus entirely preventing the Pump from freezing.

This Pump is simple in its construction, not liable to get out of order, and by the *directness* of its action, and consequent *freedom from friction*, is a most *efficient and powerful Pump*.

As an *Anti-freezing Suction and Force Pump*, it has no equal.

We also make them with Brass Cylinders, and the entire *working portions* of the Pump of the same material, *when so ordered*.

Sizes and Prices.

							Iron.	Brass Cyl.
No. 15,	3-in. bore,	6½-in. stroke,	2-in. suction,	1½-in. discharge.....			\$40 00	\$60 00
" 4	" 6½	" 2½	" 1½	"			55 00	80 00
" 5	" 6½	" 3	" 2	"			70 00	95 00
" 6	" 7½	" 3½	" 2½	"			100 00	155 00

And with 40 revolutions per minute, the 3-inch bore will discharge 20 to 30 gallons.

" 35	"	" 4	"	"	25 to 35	"
" 35	"	" 5	"	"	30 to 40	"
" 30	"	" 6	"	"	60 to 70	"

Can increase the quantity of water by running at a faster rate of speed.

With folding Brakes, for six or eight men, extra, \$20.00.

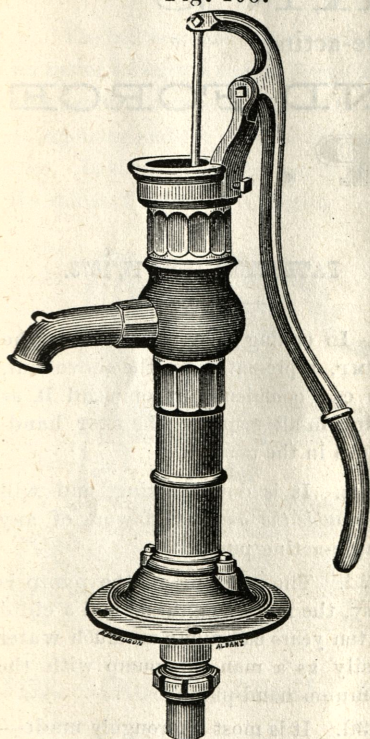
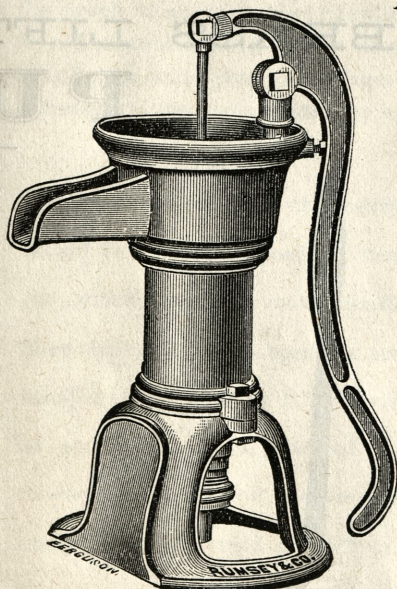
CLOSE TOP CISTERN PUMP.**Fig. 100.****PITCHER SPOUT PUMP.****Fig. 103**

Fig. 100 represents our entirely New Style Iron Cistern Pumps, with brass Valve Seats and brass Tubes projecting, for attaching Lead, Gas and other pipe, as may be ordered. This Pump has a Water Chamber sufficiently large to retain the surplus water caused by fast pumping, and thereby obviates the possibility of running it over at the top, for which we hold the exclusive patent. The Fulcrum and Lever revolve, and can be adjusted to any position by simply turning the set-screw under the lever.

Sizes and Prices.

Sizes and Prices,

Fig. 100, No. 0, 2½ inch Calibre, suitable for Pipe 1 inch Calibre, each.....										\$3 50
"	"	1, 2½	"	"	"	1	"	"		4 00
"	"	2, 2½	"	"	"	1 or 1½	"	"		4 50
"	"	3, 3	"	"	"	1½ or 1½	"	"		5 00
"	"	4, 3½	"	"	"	1½ or 1½	"	"		5 50
"	"	5, 3½	"	"	"	1½ or 1½	"	"		6 50
"	"	6, 3½	"	"	"	1½ or 2	"	"		8 00

Fig. 103 represents our Pitcher Spout Pump for Cisterns, with Patent Spring Valve and Revolving Fulcrum. By loosening the Set-screw under the lever, the Piston, or Upper Valve can be drawn out at the top, and by inserting the hand into the Cylinder, the Lower Valve may be reached, as it is held in place merely by a brass spring.

Sizes and Prices.

Sizes and Prices.

Fig. 103 A No. 1,	2½ inch Calibre,	suitable for Pipe 1	or 1½ inch Calibre,	each,	.....	\$4 25
" "	2, 3	"	" 1½	" 1½	"	4 75
" "	3, 3½	"	" 1½	" 1½	"	5 25
" "	4, 4	"	" 1½	" 1½	"	5 75
" "	5, 4½	"	" 1½	" 2	"	6 25

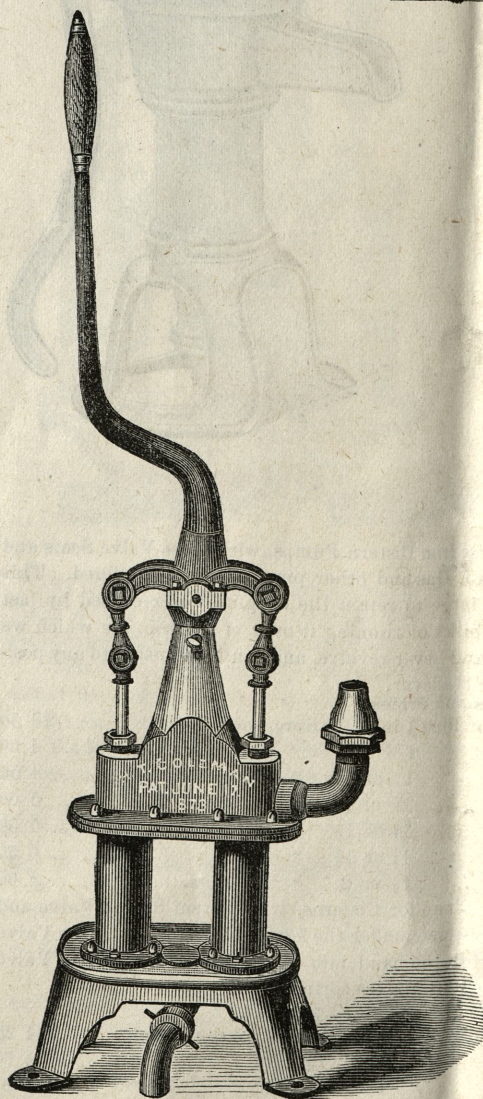
Our Pitcher Spout Pump is specially adapted to the *Driven Well*.

COLEMAN'S

Anti-freezing, Double-acting

BRASS LIFT AND FORCE PUMP.

PATENTED JUNE 17, 1873.



In calling your attention to the PUMP, represented by the above cut, we can confidently recommend it as being in all respects, the BEST hand-pump in the market.

1st. It is double-acting, and will do *double the amount* of work of any single-acting pump.

2d. The working of the pump is easy, the motion natural, and a child of ten years can pump as much water easily as a man can pump with the common hand-pump.

3d. It is most thoroughly made—all its parts being uniform and interchangeable.

4th. It is anti-freezing consequently can be placed in exposed positions without danger.

5th. It throws a continuous stream—the least motion of the handle, forward or back, *at once* setting it to work.

6th. With this pump water may be forced to any part of the house or stable with the greatest ease.

Directions for Emptying the Pump.

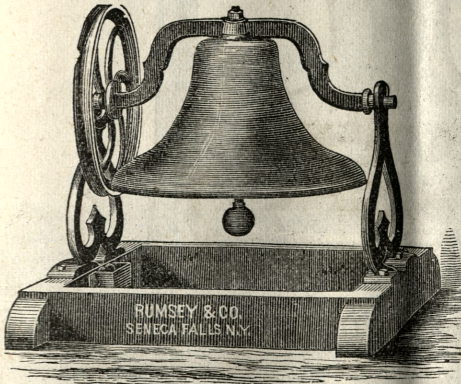
Unscrew the thumb-piece in the air-chamber, then draw the handle back, then forward, thereby entirely lowering the plungers, opening the valves, and discharging all the water from the pump.

Diameter of Cylinder.

2 inch.....	PRICE.
2½ ".....	\$20 00
3 ".....	27 50

STEEL AMALGAM BELLS.

The bell is an ancient invention of the church to serve a deep need, and to this day no better substitute can be found for it. But all the people of any town have likewise an interest in owning a Church Bell. They need it for funerals and weddings, for days of rejoicing and for national celebrations. It may ring for fire, and prevent a conflagration. In short, a Church Bell is a possession and a treasure to the whole community in the midst of which it is placed.



It is important that the belfry should be as open as possible, that the sound may be unobstructed. Mere slatting or small openings are insufficient to secure the full volume of sound. The belfry should be floored above and below, and the side openings should extend to the floor.

FOR SCHOOL HOUSES, ACADEMIES, FACTORIES, SHOPS, ETC.

Sizes and Prices, with Wheel Hangings and Frame Complete.

<i>Diameter of Bells.</i>		<i>Weight with Wheel Hangings and Frame Complete.</i>		<i>Cost of Bell and Hangings.</i>	
No. 6	25 inches	230 lbs.		\$25	00
No. 6½	27 inches	340 lbs.		36	00
No. 7	30 inches	490 lbs.		50	00

Church Bells.

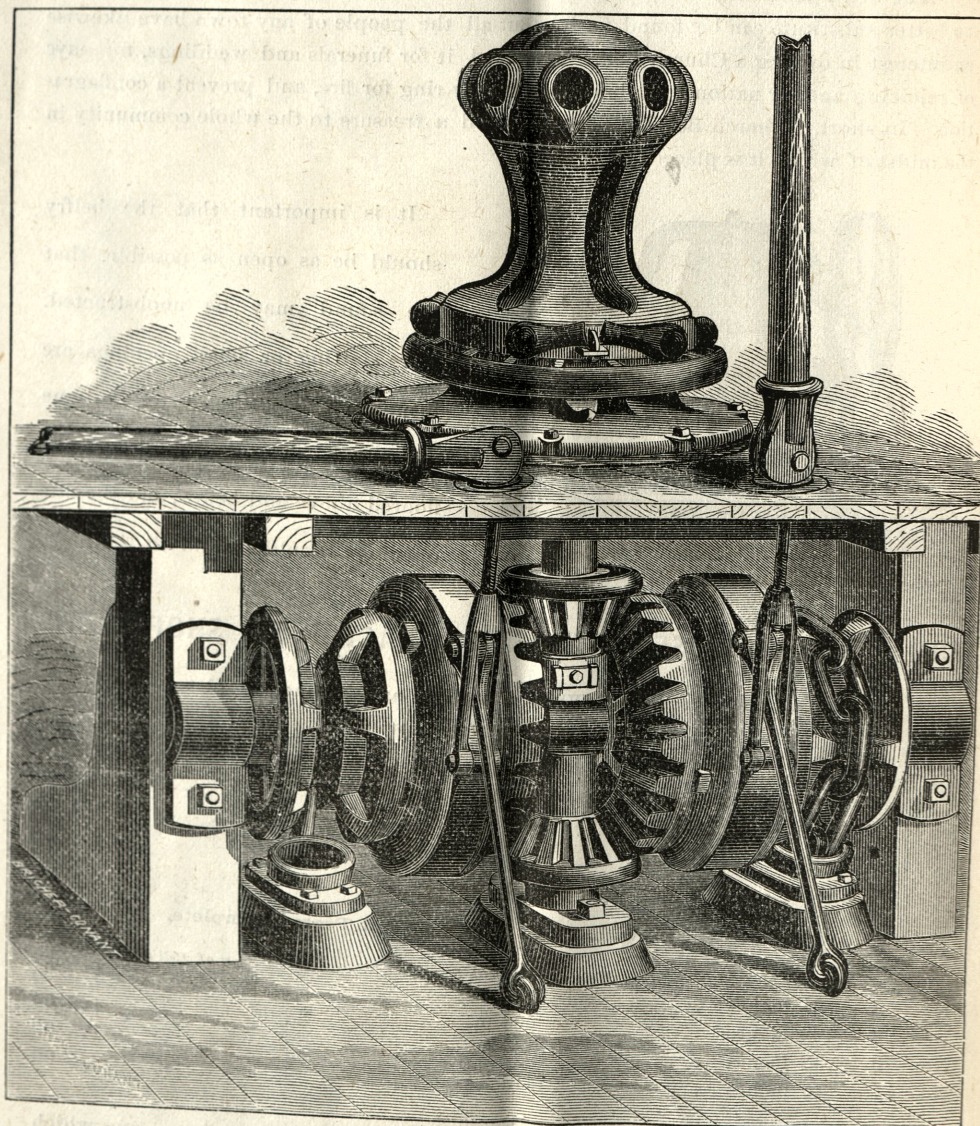
Sizes and Prices, with Wheel Hangings and Frame Complete.

<i>Diameter of Bells.</i>		<i>Weight of Bell with Standard.</i>		<i>Cost of Bell and Hangings.</i>	
No. 8	34 inches	730 lbs.		\$75	00
No. 9	38 inches	925 lbs.		130	00
No. 10	42 inches	1200 lbs.		175	00
No. 11	45 inches	1475 lbs.		225	00

These Bells being an alloy of cast steel, combine valuable qualities, among which are tone, strength, sonorousness and durability of vibration, unequaled by any other manufacturer, and costing less than any other in the market.

We are the original manufacturers of Steel Amalgam Bells, and the world-wide reputation they have acquired has induced other parties to adopt a similar name, to enable them to dispose of an inferior article, relying solely on the merits of the name.

UNION POWER WINDLASS.

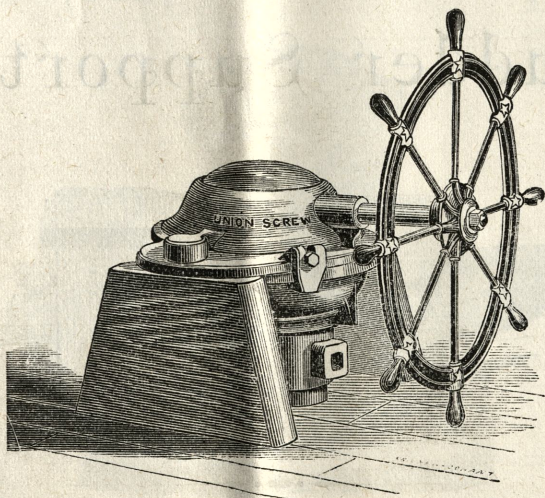


This Windlass has a Power Capstan for both combined and independent use. Two Superior Elastic Chain-Stoppers. Two frictions applicable to either cable, and operated by capstan bars. End Barrels and Gear to apply steam power, furnished to order. Including the best Power Capstan in use and a superior Elastic Chain Stopper.

Sizes of Chains or of large Chain if two sizes are used.

1 1-16 or 1 1-8	1 3-16 or 1 1-4	1 5-16 or 1 3-8	1 7-16 or 1 1-2	1 9-16 or 1 5-8	1 11-16 or 1 3-4	1 13-16 or 1 7-8	1 15-16 or 2
\$356	\$427	\$480	\$570	\$640	\$715	\$860	\$920

The Union Screw Steerer.



One Hundred in successful use the first year.

It is without exception the most compact, the strongest, and safest of all Screw-Steerers yet brought into use. It has the important quality, long sought but never before practically secured, viz.: that of holding the rudder at every point of its movement. The wheel may be left free at any point, and will not turn back by any surge or force acting upon the rudder.

The rudder, though prevented from acting upon the wheel, acts upon the spring-cushions which effectually protect it from all ordinary danger of being "carried away." The Steerer works easily, the screws running in oil unless neglected.

It is free from danger of injury by the grounding of the rudder; rising freely with it without injury to the parts.

The parts may all be examined and oiled while in operation. Price as low as any other screw-steerer. The cost of setting is less than that of any other steerer.

In cases where space is very limited, they may be made to order with the wheel aft of the steerer, in which case the house may come within 12 to 18 inches of the centre of the rudder-stock, and the entire apparatus occupy but from 24 to 36 inches fore and aft.

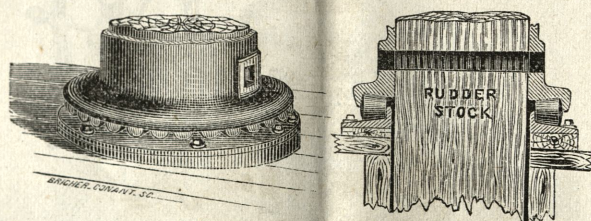
A good idea of the general appearance is given by the cut; the style is deemed superior to the best in use.

RUDDER HEAD.	WHEEL.	PRICE.
18 inches.....	60 inches.....	\$220
17 ".....	54 ".....	200
16 ".....	54 ".....	190
15 ".....	54 ".....	175
14 ".....	48 ".....	165
13 ".....	48 ".....	150
12 ".....	48 ".....	140
11 ".....	42 ".....	130
10 ".....	42 ".....	120
9 ".....	36 ".....	95
8 ".....	36 ".....	80
7 ".....	30 ".....	70
6 ".....	30 ".....	60
5 ".....	24 ".....	50
4 ".....	19 ".....	40
3½ ".....	19 ".....	40
3 ".....	12 ".....	30
2½ ".....	12 ".....	30
2 ".....	12 ".....	30

The Wheel Shaft may be ordered longer or shorter than the usual length, if ordered before making there will be no charge for less than Ten inches extra length.

PATENT UNION

Rudder Supporter.



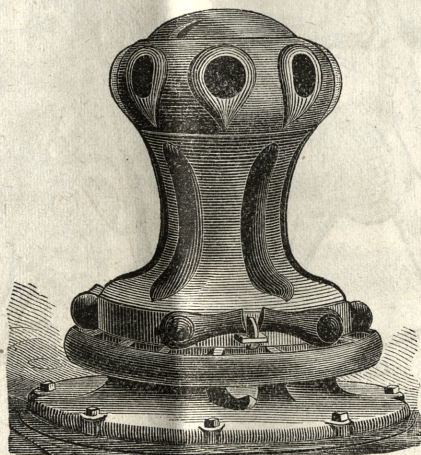
This Rudder Supporter is sold with the Union Screw Steerer at a low price. It is applicable to all kinds of steerers commonly used, and is believed to be much the best in use.

Dia. of Rudder Stock	Price.
18 and 19 inch.....	each \$50
16 and 17 "	" 40
14 and 15 "	" 32
12 and 13 "	" 26
10 and 11 "	" 20
8 and 9 "	" 14
6 and 7 "	" 8
4 and 5 "	" 4

When made and sold with the Union Screw Steerer, the parts are made together, and the cost thereby reduced as follows :—

18 and 19 inch.....	each \$31
16 and 17 "	" 26
14 and 15 "	" 21
12 and 13 "	" 16
10 and 11 "	" 11
8 and 9 "	" 8
6 and 7 "	" 5
4 and 5 "	" 3

The Union Power Capstan.



Over Sixteen Hundred in successful use. Has no Rival.

By upwards of one thousand and six hundred specimens, has proved itself the most Reliable and Powerful, the Strongest, Safest, and most Durable—therefore the Cheapest and most Economical—of all the Power Capstans yet brought into use.

We have a large and improved list of nine regularly graded sizes, affording the best assortment in this country to select from.

We guarantee them to be stronger and safer than any other Power Capstan of like price, and affording like facilities.

These Capstans, whenever in an emergency it becomes necessary to overwork them, even to a breaking strain, do not endanger the lives or limbs of the men. In case of breaking any of the working parts under extraordinary strain, the lever-head is left free; and though the line recoils, causing the backward rotation of the barrel never so violently, the men are safe.

It is but just that attention should be called to the fact that this is not the case with those Capstans in which the purchase is changed from fast to slow, by reversing the motion of the capstan bars. Abundant testimonials to the superiority of these Capstans will be exhibited, and their peculiar advantages explained, to any who are interested to call and examine.

THE UNION POWER CAPSTANS.

PRICE LIST.

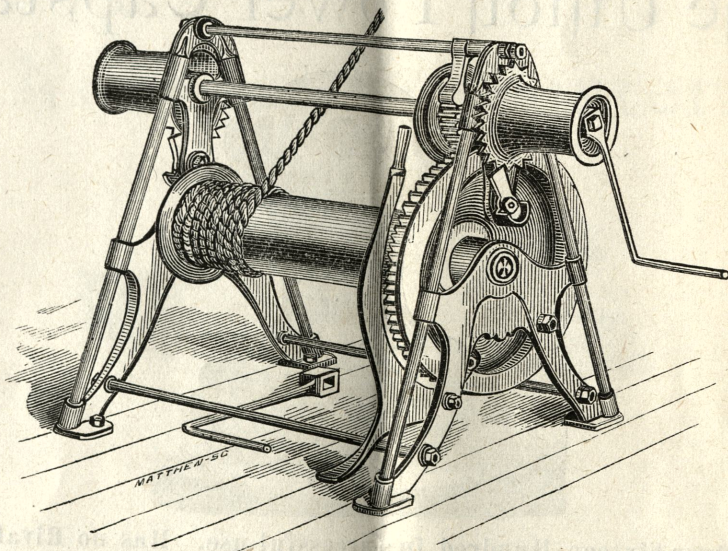
Size.....	No. 1.	No. 2.	No. 3.	No. 4.	No. 5.	No. 6.	No. 7.	No. 8.	No. 9.	No. 10
Price.....	\$47	\$55	\$65	\$79	\$97	\$123	\$146	\$170	\$195	
Equal to a Manilla										
Rope of Circum'ce.....	3½ in.	4 in.	4½ in.	5½ in.	6½ in.	7½ in.	9 in.	12 in.	15 in.	
Weight.....	260 lb.	350 lb.	435 lb.	560 lb.	660 lb.	920 lb.	1,074 lb.	1,440 lb.	1,790 lb.	
Diameter Barrel.....	7½ in.	8 in.	9 in.	10 in.	11 in.	12 in.	13 in.	14 in.	15 in.	
Height.....	24 "	25½ "	27 "	29 "	31½ "	34 "	36 "	38 "	42 "	
Diameter Base.....	18 "	20 "	22 "	25 "	27 "	30 "	33 "	35 "	37 "	

Without Power Purchase.

SAME EXTERIOR AS THE ABOVE.

Price . \$25 \$32 \$40 \$48 \$57 \$70 \$85 \$100 \$120

THE UNION WINCH.

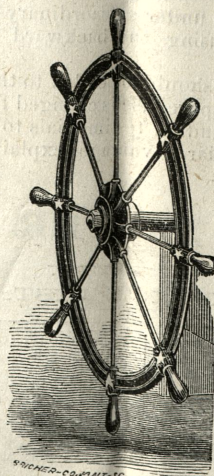


Is a new style Winch with frame made mainly of wrought iron on a new and attractive plan. It affords all the facilities of the best in the market while it is very neat, compact and strong. The lowering away facilities are under control of the foot or hand at pleasure. A similar winch is made to order for bitts, for which the distance between the bitts and their thickness athwart ships must be given.

PRICE,

\$70

PATENT DESIGN

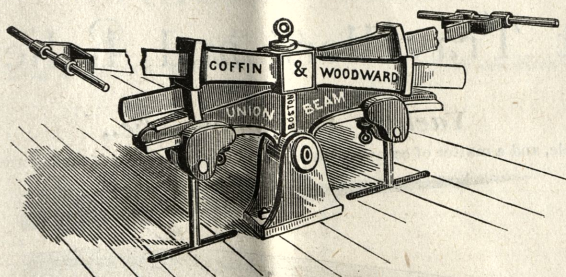


STEERING WHEEL.

Patent Design Steering Wheels.

These Wheels are of superior design and workmanship, and of nine different sizes, from 12 inches to 60 inches extreme diameter.

UNION BEAM.



Power variable by adjustment of hand levers and links, No pins or keys.

THE UNION BEAM.

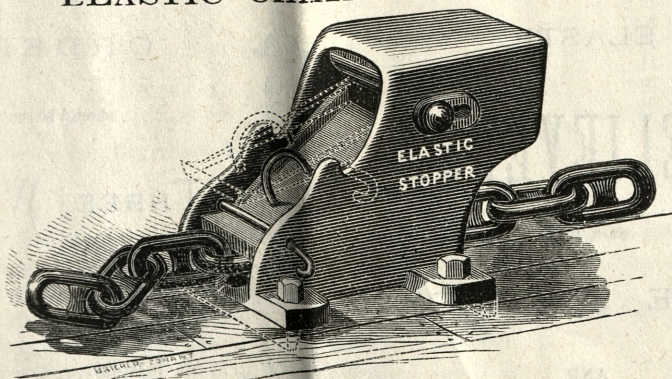
Is adapted to all Brake Windlasses, whether wooden or iron. It has the merit of strength, compactness and neatness. The power can be varied from a quick working beam to one of greatly increased power almost instantly, without the use of pins, keys or other loose parts. When power is wanted it is only necessary to release the levers by loosening the screw shown on top of the centre of the beam, and to draw the levers out to any length required inside the vessel's rail. The man may even stand inside the handles and work them close to the rail. The links connecting the beam with the primary levers of the windlass may be set nearer to or farther from the central fulcrum at pleasure by loosening a screw, by which means also the power may be still further varied. The beam can be set high or low, as the levers can be inserted to range low or high or at pleasure.

The Beam may be ordered with stand to bolt down to the deck, or with stand to bolt to the face of the Samson's post, as may be desired. Price low. Give the size of anchor chain with orders.

PRICES.

Beam of suitable size for $1\frac{1}{2}$ inch, Chain-Cable and under	-	-	\$38
$1\frac{3}{4}$ " " " "	-	-	33
$1\frac{1}{2}$ " " " "	-	-	28

ELASTIC CHAIN STOPPER.



The safest and most economical riding device yet invented.

Having had considerable experience in this class of goods, we think we hazard nothing in saying we have sacrificed neither strength or efficiency, but have combined both, with so moderate a price that it is a false economy for any vessel that has no Elastic Stopper to do without them.

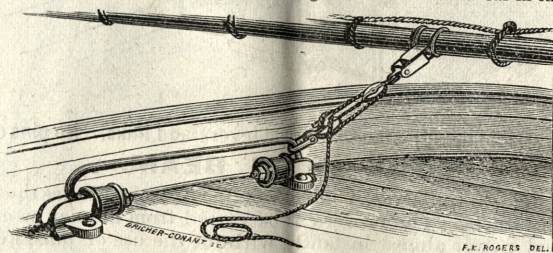
PRICES.

No. 1 for $\frac{3}{4}$ inch chain and under	\$22	No. 3 for $1\frac{1}{2}$ inch chain and under	\$55
2 $1\frac{1}{4}$ " " "	37	4 $1\frac{3}{4}$ " " "	75

No charge when sent with Union Power Windlass.

ELASTIC Sheet Travellers and Relievers, FOR *Yachts, Schooners, &c.,*

A superior article, and a matter of economy, the saving in wear and tear is far in excess of the cost.



This Traveller has been in use for several years with the best results. It has been used on all sizes of vessels from the small yachts to the largest schooners. All agree as to its being a substantial improvement.

All sizes are usually kept on hand, but when required of special lengths to be Galvanized, they are made to order. Orders should reach us two or three weeks before the article is required.

PRICES.

inch	.....	\$ 4
"	.....	6
"	.....	8
"	.....	15
"	.....	20
"	.....	28
"	.....	33
"	.....	40

ELASTIC

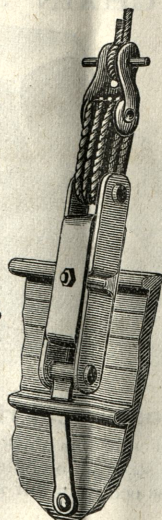
RELIEVERS

FOR THE

WIRE SHROUDS

AND

Stays of Yachts,



ORDERS

should be sent

THREE WEEKS

before the

RELIEVERS

are required.

The above Elastic Reliever has been used with good results, the past season, on several yachts.

These Relievers are made to order, for various purposes, as for bob-stays, &c.; for sheet blocks, travellers, &c.; for draft attachments for horses, &c.

Rubber Hose.

Conducting Hose—2 Ply.

Internal Diameter.	
$\frac{1}{2}$ inch.....	\$ 17 per foot.
$\frac{3}{4}$ ".....	25 "
$\frac{7}{8}$ ".....	29 "
1 ".....	33 "
$1\frac{1}{4}$ ".....	42 "
$1\frac{1}{2}$ ".....	50 "
$1\frac{3}{4}$ ".....	58 "
2 ".....	66 "
$2\frac{1}{4}$ ".....	75 "
$2\frac{1}{2}$ ".....	83 "
$2\frac{3}{4}$ ".....	92 "
3 ".....	1 00 "

Hydrant Hose—3 Ply.

Internal Diameter.	
$\frac{1}{2}$ inch.....	\$ 20 per foot.
$\frac{3}{4}$ ".....	30 "
$\frac{7}{8}$ ".....	35 "
1 ".....	40 "
$1\frac{1}{4}$ ".....	50 "
$1\frac{1}{2}$ ".....	60 "
$1\frac{3}{4}$ ".....	70 "
2 ".....	80 "
$2\frac{1}{4}$ ".....	90 "
$2\frac{1}{2}$ ".....	1 00 "
$2\frac{3}{4}$ ".....	1 10 "
3 ".....	1 20 "

Engine Hose—4 Ply.

Internal Diameter.	
$\frac{1}{2}$ inch.....	\$ 25 per foot.
$\frac{3}{4}$ ".....	37 "
$\frac{7}{8}$ ".....	43 "
1 ".....	50 "
$1\frac{1}{4}$ ".....	62 "
$1\frac{1}{2}$ ".....	75 "

Internal Diameter.	
$1\frac{3}{4}$ inch.....	\$ 87 per foot.
2 ".....	1 00 "
$2\frac{1}{4}$ ".....	1 12 "
$2\frac{1}{2}$ ".....	1 25 "
$2\frac{3}{4}$ ".....	1 37 "
3 ".....	1 50 "

Steam Hose.

Made especially to order, of extra quality, for conducting steam. Prices 50 per cent. advance on ordinary standard Hose.

Suction Hose.

Internal Diameter.	
$\frac{1}{2}$ inch.....	\$ 70 per foot.
1 ".....	90 "
$1\frac{1}{4}$ ".....	1 15 "
$1\frac{1}{2}$ ".....	1 50 "
$1\frac{3}{4}$ ".....	1 90 "
2 ".....	2 30 "
$2\frac{1}{2}$ ".....	3 10 "
3 ".....	4 00 "
$3\frac{1}{2}$ ".....	4 90 "

Internal Diameter.	
4 inch.....	\$5 80 per foot.
$4\frac{1}{2}$ ".....	6 70 "
5 ".....	7 60 "
$5\frac{1}{2}$ ".....	8 50 "
6 ".....	9 50 "
7 ".....	11 75 "
8 ".....	14 25 "
9 ".....	16 75 "
10 ".....	18 50 "

We make the sizes larger than 2 inch on flat Galvanized spiral Coil.

Steam Packing.

PER POUND.

Mixed or Fibrous Packing in sheets of all thicknesses, from 1-32 of an inch upward, about one yard wide, of any length required.....	\$ 50
Thinner sizes of same—say 1-16 and less of an inch.....	60
Gum Packing, with Cloth Insertion , in sheets of all thicknesses, from 3-32 of an inch upward, about one yard wide, of any length required.....	55
Thinner sizes of same—say 1-16 of an inch and less.....	65
Pure Vulcanized Sheet Rubber	1 00
Extra Pure Vulcanized Rubber Valves	1 00 to 1 50

Special orders for any article that we do not keep on hand will be promptly executed.

Rubber Belting.

2-Ply.

1 inch.....	7 per foot.	$2\frac{1}{4}$ inch.....	17 per foot.
$1\frac{1}{4}$ ".....	8 $\frac{1}{2}$ "	3 ".....	20 "
$1\frac{1}{2}$ ".....	10 "	$3\frac{1}{2}$ ".....	24 "
2 ".....	14 "	4 ".....	28 "

Rubber Belting.

3-Ply.					
2 inch	.....\$	17	per foot.	12 inch	.....\$1 08 per foot.
3 "	.....	26	"	13 "	.....1 18 "
4 "	.....	34	"	14 "	.....1 28 "
5 "	.....	43	"	15 "	.....1 38 "
6 "	.....	52	"	16 "	.....1 50 "
7 "	.....	60	"	18 "	.....1 70 "
8 "	.....	70	"	20 "	.....1 90 "
9 "	.....	80	"	22 "	.....2 12 "
10 "	.....	90	"	24 "	.....2 36 "
11 "	.....	1 00	"		

4-Ply.

2 inch	\$ 21	per foot.	12 inch	\$1 30	per foot.
3 "	31	"	13 "	1 42	"
4 "	42	"	14 "	1 54	"
5 "	52	"	15 "	1 66	"
6 "	62	"	16 "	1 78	"
7 "	73	"	18 "	2 02	"
8 "	84	"	20 "	2 26	"
9 "	95	"	22 "	2 52	"
10 "	1 07	"	24 "	2 80	"
11 "	1 18	"			

Oak Tanned Leather Belting.

1 inch	\$ 6	8 inch	\$ 90
1 1/4 "	9	9 "	1 02
1 1/2 "	12	10 "	1 14
1 3/4 "	15	11 "	1 26
2 "	18	12 "	1 38
2 1/4 "	21	13 "	1 50
2 1/2 "	24	14 "	1 62
2 3/4 "	27	15 "	1 78
3 "	30	16 "	1 94
3 1/4 "	36	17 "	2 10
3 1/2 "	42	18 "	2 26
3 3/4 "	48	19 "	2 42
4 "	54	20 "	2 58
4 1/4 "	60	21 "	2 74
4 1/2 "	66	22 "	2 90
4 3/4 "	72	23 "	3 06
5 "	78	24 "	3 22

Brass Coupling.

3/4 inch	3 inch
1 "	3 1/2 "
1 1/4 "	4 "
1 1/2 "	4 1/2 "
1 3/4 "	5 "
2 "	6 "

Brass Hose Pipes, Screw Tips.

3/4 inch	1 1/2 inch
1 "	2 "
1 1/4 "	2 1/2 "

Leather Hose Pipes, Brass Nozzles.

2 inch	2 1/2 inch	2 1/2 inch Extra
--------	------------	------------------

Strainers.

1 1/2 inch	3 1/2 inch
1 3/4 "	4 "
2 "	4 1/2 "
2 1/2 "	5 "
3 "	6 "



BUCKLEY & MERRITT,

136 South Street, - - - New York.

DEALERS IN NEW AND SECOND HAND

Fire Apparatus & Hose

STEAM & HAND FIRE ENGINES,

HOOK & LADDER TRUCKS,

HOSE CARRIAGES, HOSE CARTS, HOOKS,

Axes, Picks, Crow Bars, Buckets,

SIGNALS, SIDE LIGHTS,

Lanterns, &c., &c.

Rubber, Leather & Suction Hose,

Repairing of Fire Apparatus & Hose a Specialty.

'Tis life beyond

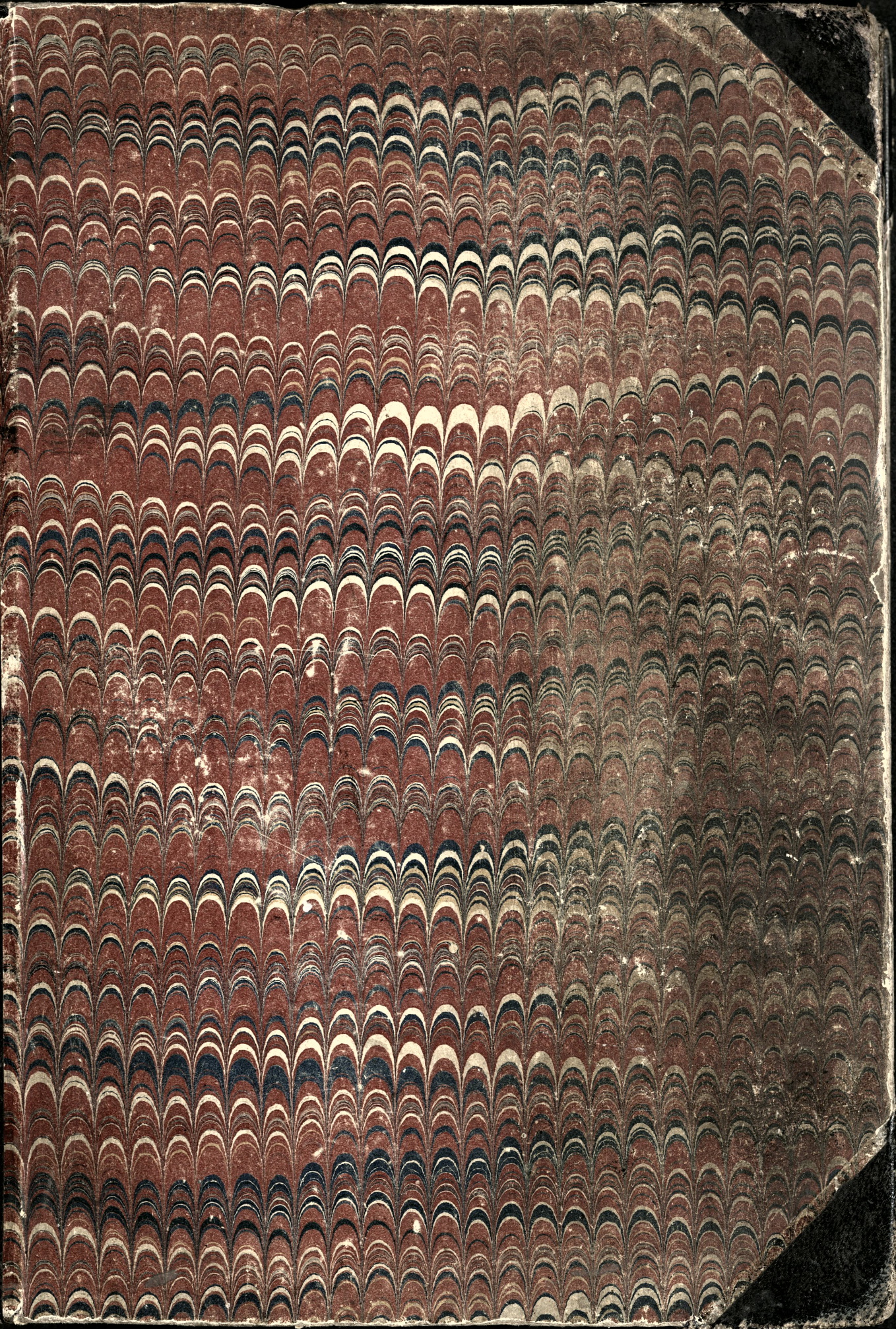
I watched a sail until it dropped from sight
Over the rounding sea. A gleam of white,
A last far-flashed farewell, and, like a thought
Slipped out of mind, it vanished and was not.

So may it be, perchance, when down the tide
Our dear ones vanish. Peacefully they glide
On level seas, nor mark the unknown bound.
We call it death - to them 'tis life beyond.

author unknown.

Most of ^{all} the other beautiful things in life come by twos and threes,
by dozens and hundreds. Plenty of roses, stars, sunsets, rainbows;
brothers and sisters, aunts and uncles, but only one mother
in the whole world.

Kate Douglas Wiggin



Second Note Book

 $\frac{68}{20}$

B

46.00

4.00

50.00

4

54.00

45-

229
X3

257.
3
1283

30/600
20, days

421
05-
2105-
1840
368
5-
1285-
5230

Bark Rosne on The *Trails*
from New Orleans towards

Tea - 50 lbs
Coffee 80
Sugar 150
Malasses 35 gallons

Capt R. E. Otis
Brunswick
Maine

2583
06
154.98
75
\$229.98

50
1300
2300
50
1708
7.32
32
3416
5124
480
355136
11456
12007.36

1708
9
32/15372
128
257
256
120

1250
342
2500
5000
6250
625
677.125
339
7110

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650
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56022 2/4
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3822
8918

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3000
24517

32/720
64
80
24
8/16
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8479
732 1/4
10437
10437
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2.9:1
02.8141
91=12=41

$$\begin{array}{r}
 13 \quad 3313 = 16 = 7 \\
 \underline{165} \quad 13 = 9 \\
 3479 = 09 = 4 \\
 \underline{733} \quad 14 \\
 10437 \\
 \underline{10437} \\
 24853 \\
 \underline{869} \\
 2550976 \\
 \underline{2511495} \\
 00394 = 81 \quad R_n 2550976 =
 \end{array}$$

$$\begin{array}{r}
 161 \\
 \underline{30} \\
 181 \\
 \underline{19} \\
 200 \\
 \underline{121} \\
 321
 \end{array}$$

$$\begin{array}{r}
 41 \\
 \underline{55} \\
 25 \\
 \underline{121}
 \end{array}$$

March

April

May

June

July

$$\begin{array}{r}
 1 \\
 30 \\
 31 \\
 30 \\
 19 \\
 \hline
 111 \\
 \underline{4} \\
 60/444 \quad 7 = 24 \\
 \underline{420} \quad 66 = 6 \\
 24 \quad 8 = 30 = 6
 \end{array}$$

$$\begin{array}{r}
 411 \\
 \underline{6} \\
 10/666 \quad 66 = 6 \\
 \underline{60} \\
 66 \\
 \underline{66} \\
 6
 \end{array}$$

$$29 = 33 = 3$$

$$\begin{array}{r}
 29 = 33 = 3 \\
 8 = 30 - 6 \\
 \hline
 38 = 08 = 9 \\
 \underline{4-6} \\
 38 = 08 = 5
 \end{array}$$

$$\begin{array}{r}
 4106 \\
 \underline{3-22} \\
 3 = 44
 \end{array}$$

$$\begin{array}{r}
 60/1111 = 51 \\
 \underline{60} \\
 51 \quad 2 = 02 = 1 \\
 29 = 33 = 3 \\
 \underline{31} = 35 = 4
 \end{array}$$

$$83 = 51$$

$$10/4344 = 3$$

$$\begin{array}{r}
 13 = 30 \\
 \underline{83 = 51} \\
 83 = 51
 \end{array}$$

$$60/1111 = 51$$

$$8 = 30 - 6$$

$$\begin{array}{r}
 12/3 = 28 \\
 \underline{19} \\
 13/3147 \\
 \underline{4 = 06} \\
 8 = 57 - 44
 \end{array}$$

$$\begin{array}{r}
 2 = 13 - 01 \\
 \underline{3 = 47} \\
 14 = 16 = 48 \\
 \underline{8 = 42 = 5} \\
 5 = 34 = 43
 \end{array}$$

$$50 = 83 = 51$$

$$4100 \text{ min}$$

Bark Rome left New Orleans April 10
and left the Bar April 11-1874 for Cronstadt

790,35-	790,35-	Stons	717,09
1142	717,09	consul bill	425-
	321		<u>1142:09</u>
1867,44	1828,44	Advance to officers and crew	
577,62	39,00	Sundry expenses	2000
<u>454,94</u>			<u>1142:09</u>
2900,00	1867,44		857,91
100 to self			
<u>3000,00</u>			

554,94	3000		
	1867,44		
	<u>1132,56</u>		
	577,62		
	<u>554,94</u>		
	480,00		
	<u>74,94</u>		
	321		
	<u>100</u>		
	421		
	<u>425</u>		
	1132,56		
	577,62		
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		21677,	
		577,62	
		<u>22094,62</u>	
		1867	
		74,94	
		<u>23,06</u>	
		100,00	
		480,00	
		<u>100</u>	
		380	
			22094,62
			1867,44
			<u>23962,06</u>

with me at Elie	1867,44		
	577,62		
	454,94		
	<u>2900,00</u>		
	100		
	3000,00		
	321		
	<u>39</u>		
	360		
	<u>65-</u>		
	425-		
		480	
		<u>23,06</u>	
		454,94	
		<u>23714,95-</u>	
		23962,06	
		<u>25-2,89</u>	
		554,94	
		<u>454,94</u>	
		100,00	

7,33/1867,44(227,
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2014
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1867
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March	30	$29:33=3$ $\frac{1-1}{1-1}$	$29/30=06:3$ $\frac{1-1}{1-1}$	$26/30=36=0$ $\frac{1-1}{1-1}$	$22/31=05=7$ $\frac{1-1}{1-1}$
	31	$29:34=4$ $\frac{1-1}{1-1}$	$30/30=07=4$ $\frac{1-1}{1-1}$	$27/30=37=1$ $\frac{1-1}{1-1}$	$23/31=06=8$ $\frac{1-1}{1-1}$
April	1	$29:35=5$ $\frac{1-1}{1-1}$	$1/30=08=5$ $\frac{1-1}{1-1}$	$28/30=38=2$ $\frac{1-1}{1-1}$	$24/31=07=9$ $\frac{1-1}{1-1}$
	2	$29:36=6$ $\frac{1-1}{1-1}$	$2/30=09=6$ $\frac{1-1}{1-1}$	$29/30=39=3$ $\frac{1-1}{1-1}$	$25/31=08=0$ $\frac{1-1}{1-1}$
	3	$29:37=7$ $\frac{1-1}{1-1}$	$3/30=10=7$ $\frac{1-1}{1-1}$	$30/30=40=4$ $\frac{1-1}{1-1}$	$26/31=10=7$ $\frac{1-1}{1-1}$
	4	$29:38=8$ $\frac{1-1}{1-1}$	$4/30=11=8$ $\frac{1-1}{1-1}$	$31/30=41=5$ $\frac{1-1}{1-1}$	$27/31=11=2$ $\frac{1-1}{1-1}$
	5	$29:39=9$ $\frac{1-1}{1-1}$	$5/30=12=9$ $\frac{1-1}{1-1}$	$1/30=42=6$ $\frac{1-1}{1-1}$	$28/31=12=3$ $\frac{1-1}{1-1}$
	6	$29:40=0$ $\frac{1-1}{1-1}$	$6/30=14=0$ $\frac{1-1}{1-1}$	$2/30=43=7$ $\frac{1-1}{1-1}$	$29/31=13=4$ $\frac{1-1}{1-1}$
	7	$29:41=1$ $\frac{1-1}{1-1}$	$7/30=15=1$ $\frac{1-1}{1-1}$	$3/30=44=8$ $\frac{1-1}{1-1}$	$30/31=14=5$ $\frac{1-1}{1-1}$
	8	$29:42=2$ $\frac{1-1}{1-1}$	$8/30=16=2$ $\frac{1-1}{1-1}$	$4/30=45=9$ $\frac{1-1}{1-1}$	$1/31=15=6$ $\frac{1-1}{1-1}$
	9	$29:43=3$ $\frac{1-1}{1-1}$	$9/30=17=3$ $\frac{1-1}{1-1}$	$5/30=46=0$ $\frac{1-1}{1-1}$	$2/31=16=7$ $\frac{1-1}{1-1}$
	10	$29:44=4$ $\frac{1-1}{1-1}$	$10/31=18=4$ $\frac{1-1}{1-1}$	$6/30=47=1$ $\frac{1-1}{1-1}$	$3/31=17=8$ $\frac{1-1}{1-1}$
	11	$29:45=5$ $\frac{1-1}{1-1}$	$11/30=19=5$ $\frac{1-1}{1-1}$	$7/30=48=2$ $\frac{1-1}{1-1}$	$4/31=18=9$ $\frac{1-1}{1-1}$
	12	$29:46=6$ $\frac{1-1}{1-1}$	$12/30=20=6$ $\frac{1-1}{1-1}$	$8/30=49=3$ $\frac{1-1}{1-1}$	$5/31=20=0$ $\frac{1-1}{1-1}$
	13	$29:47=7$ $\frac{1-1}{1-1}$	$13/30=21=7$ $\frac{1-1}{1-1}$	$9/30=50=4$ $\frac{1-1}{1-1}$	$6/31=21=1$ $\frac{1-1}{1-1}$
	14	$29:48=8$ $\frac{1-1}{1-1}$	$14/30=22=8$ $\frac{1-1}{1-1}$	$10/30=51=5$ $\frac{1-1}{1-1}$	$7/31=22=2$ $\frac{1-1}{1-1}$
	15	$29:49=9$ $\frac{1-1}{1-1}$	$15/30=23=9$ $\frac{1-1}{1-1}$	$11/30=52=6$ $\frac{1-1}{1-1}$	$8/31=23=3$ $\frac{1-1}{1-1}$
	16	$29:50=0$ $\frac{1-1}{1-1}$	$16/30=24=0$ $\frac{1-1}{1-1}$	$12/30=53=7$ $\frac{1-1}{1-1}$	$9/31=24=4$ $\frac{1-1}{1-1}$
	17	$29:51=1$ $\frac{1-1}{1-1}$	$17/30=25=1$ $\frac{1-1}{1-1}$	$13/30=54=8$ $\frac{1-1}{1-1}$	$10/31=25=5$ $\frac{1-1}{1-1}$
	18	$29:52=2$ $\frac{1-1}{1-1}$	$18/30=26=2$ $\frac{1-1}{1-1}$	$14/30=55=9$ $\frac{1-1}{1-1}$	$11/31=26=6$ $\frac{1-1}{1-1}$
	19	$29:53=3$ $\frac{1-1}{1-1}$	$19/30=27=3$ $\frac{1-1}{1-1}$	$15/30=56=0$ $\frac{1-1}{1-1}$	$12/31=27=7$ $\frac{1-1}{1-1}$
	20	$29:54=4$ $\frac{1-1}{1-1}$	$20/30=28=4$ $\frac{1-1}{1-1}$	$16/30=57=1$ $\frac{1-1}{1-1}$	$13/31=28=8$ $\frac{1-1}{1-1}$
	21	$29:55=5$ $\frac{1-1}{1-1}$	$21/30=29=5$ $\frac{1-1}{1-1}$	$17/31=00=2$ $\frac{1-1}{1-1}$	$14/31=29=9$ $\frac{1-1}{1-1}$
	22	$29:56=6$ $\frac{1-1}{1-1}$	$22/30=30=6$ $\frac{1-1}{1-1}$	$18/31=01=3$ $\frac{1-1}{1-1}$	$15/31=30=0$ $\frac{1-1}{1-1}$
	23	$29:57=7$ $\frac{1-1}{1-1}$	$23/30=31=7$ $\frac{1-1}{1-1}$	$19/31=02=4$ $\frac{1-1}{1-1}$	$16/31=31=1$ $\frac{1-1}{1-1}$
	24	$30:00=8$ $\frac{1-1}{1-1}$	$24/30=32=8$ $\frac{1-1}{1-1}$	$20/31=03=5$ $\frac{1-1}{1-1}$	$17/31=32=2$ $\frac{1-1}{1-1}$
	25	$30:01=9$ $\frac{1-1}{1-1}$	$25/30=33=9$ $\frac{1-1}{1-1}$	$21/31=04=6$ $\frac{1-1}{1-1}$	$18/31=33=3$ $\frac{1-1}{1-1}$
	26	$30:02=0$ $\frac{1-1}{1-1}$	$26/30=34=0$ $\frac{1-1}{1-1}$	$22/31=05=7$ $\frac{1-1}{1-1}$	
	27	$30:03=1$ $\frac{1-1}{1-1}$			
	28	$30:04=2$ $\frac{1-1}{1-1}$			
	29	$30:05=3$ $\frac{1-1}{1-1}$			
	30	$30:06=4$ $\frac{1-1}{1-1}$			
	31	$30:07=5$ $\frac{1-1}{1-1}$			
	32	$30:08=6$ $\frac{1-1}{1-1}$			
	33	$30:09=7$ $\frac{1-1}{1-1}$			
	34	$30:10=8$ $\frac{1-1}{1-1}$			
	35	$30:11=9$ $\frac{1-1}{1-1}$			
	36	$30:12=0$ $\frac{1-1}{1-1}$			
	37	$30:13=1$ $\frac{1-1}{1-1}$			
	38	$30:14=2$ $\frac{1-1}{1-1}$			
	39	$30:15=3$ $\frac{1-1}{1-1}$			
	40	$30:16=4$ $\frac{1-1}{1-1}$			
	41	$30:17=5$ $\frac{1-1}{1-1}$			
	42	$30:18=6$ $\frac{1-1}{1-1}$			
	43	$30:19=7$ $\frac{1-1}{1-1}$			
	44	$30:20=8$ $\frac{1-1}{1-1}$			
	45	$30:21=9$ $\frac{1-1}{1-1}$			
	46	$30:22=0$ $\frac{1-1}{1-1}$			
	47	$30:23=1$ $\frac{1-1}{1-1}$			
	48	$30:24=2$ $\frac{1-1}{1-1}$			
	49	$30:25=3$ $\frac{1-1}{1-1}$			
	50	$30:26=4$ $\frac{1-1}{1-1}$			
	51	$30:27=5$ $\frac{1-1}{1-1}$			
	52	$30:28=6$ $\frac{1-1}{1-1}$			
	53	$30:29=7$ $\frac{1-1}{1-1}$			
	54	$30:30=8$ $\frac{1-1}{1-1}$			
	55	$30:31=9$ $\frac{1-1}{1-1}$			
	56	$30:32=0$ $\frac{1-1}{1-1}$			
	57	$30:33=1$ $\frac{1-1}{1-1}$			
	58	$30:34=2$ $\frac{1-1}{1-1}$			
	59	$30:35=3$ $\frac{1-1}{1-1}$			
	60	$30:36=4$ $\frac{1-1}{1-1}$			
	61	$30:37=5$ $\frac{1-1}{1-1}$			
	62	$30:38=6$ $\frac{1-1}{1-1}$			
	63	$30:39=7$ $\frac{1-1}{1-1}$			
	64	$30:40=8$ $\frac{1-1}{1-1}$			
	65	$30:41=9$ $\frac{1-1}{1-1}$			
	66	$30:42=0$ $\frac{1-1}{1-1}$			
	67	$30:43=1$ $\frac{1-1}{1-1}$			
	68	$30:44=2$ $\frac{1-1}{1-1}$			
	69	$30:45=3$ $\frac{1-1}{1-1}$			
	70	$30:46=4$ $\frac{1-1}{1-1}$			
	71	$30:47=5$ $\frac{1-1}{1-1}$			
	72	$30:48=6$ $\frac{1-1}{1-1}$			
	73	$30:49=7$ $\frac{1-1}{1-1}$			
	74	$30:50=8$ $\frac{1-1}{1-1}$			
	75	$30:51=9$ $\frac{1-1}{1-1}$			
	76	$30:52=0$ $\frac{1-1}{1-1}$			
	77	$30:53=1$ $\frac{1-1}{1-1}$			
	78	$30:54=2$ $\frac{1-1}{1-1}$			
	79	$30:55=3$ $\frac{1-1}{1-1}$			
	80	$30:56=4$ $\frac{1-1}{1-1}$			
	81	$30:57=5$ $\frac{1-1}{1-1}$			
	82	$30:58=6$ $\frac{1-1}{1-1}$			
	83	$30:59=7$ $\frac{1-1}{1-1}$			
	84	$30:60=8$ $\frac{1-1}{1-1}$			
	85	$30:61=9$ $\frac{1-1}{1-1}$			
	86	$30:62=0$ $\frac{1-1}{1-1}$			
	87	$30:63=1$ $\frac{1-1}{1-1}$			
	88	$30:64=2$ $\frac{1-1}{1-1}$			
	89	$30:65=3$ $\frac{1-1}{1-1}$			
	90	$30:66=4$ $\frac{1-1}{1-1}$			
	91	$30:67=5$ $\frac{1-1}{1-1}$			
	92	$30:68=6$ $\frac{1-1}{1-1}$			
	93	$30:69=7$ $\frac{1-1}{1-1}$			
	94	$30:70=8$ $\frac{1-1}{1-1}$			
	95	$30:71=9$ $\frac{1-1}{1-1}$			
	96	$30:72=0$ $\frac{1-1}{1-1}$			
	97	$30:73=1$ $\frac{1-1}{1-1}$			
	98	$30:74=2$ $\frac{1-1}{1-1}$			
	99	$30:75=3$ $\frac{1-1}{1-1}$			
	100	$30:76=4$ $\frac{1-1}{1-1}$			

Sunday April 12 = 1874 P. C. Otis

46 ³ add

$$2 = 39 = 32 = 46 = 51$$

14.7 2.9

$$\begin{array}{r} 8 = 43 = 27 \\ 5 = 15 \\ 8 = 48 = 42 \\ 2 = 46 \\ 8 = 45 = 36 \end{array}$$

$$\begin{array}{r} 2 = 39 = 20 \quad 47 = 00 \\ 29 = 47 \quad 26 = 59 \quad 05005 \\ 15 = 09 = 07 \quad 81 = 14 \quad 00510 \\ 9 = 16 = 1 \quad 155 = 15 \quad 9,33133 \\ 5 = 58 = 06 \quad 77 = 37 \quad 9,70654 \\ 47 = 02 \quad 19,09302 \\ 75 = 13 \quad 30 = 85 \quad 9,54651 \\ 13 = 16 \end{array}$$

$$\begin{array}{r} 9 = 13 = 15 \\ 46 \\ 9 = 16 = 01 \end{array}$$

$$\begin{array}{r} 90 \\ 81 = 14 \quad 89.48 \\ 71 = 52 \\ 17 = 56 \\ 8 = 49 \\ 26 = 45 \\ 26 = 59 \\ 30 \text{ add} \end{array}$$

Monday April 13 = 1874

$$2 = 31 = 57 = 45 = 58$$

5.0 3.3

$$\begin{array}{r} 9 = 05 = 16 \\ 5 = 15 \\ 9 = 10 = 31 \\ 2 = 46 \\ 9 = 07 = 45 \end{array}$$

$$\begin{array}{r} 2 = 31 = 45 \quad 46 = 09 \\ 29 = 48 \quad 24 = 54 \quad 04237 \\ 75 = 01 = 33 \quad 80 = 52 \quad 00554 \\ 9 = 8 = 14 \quad 151 = 55 \quad 9,38519 \\ 5 = 58 = 19 \quad 75 = 57 \quad 9,69633 \\ 46 = 09 \quad 19,12943 \\ 75 = 13 \quad 29 = 48 \quad 9,56471 \\ 13 = 16 \end{array}$$

$$\begin{array}{r} 9 = 07 = 44 \\ 30 \\ 9 = 08 = 14 \end{array}$$

$$\begin{array}{r} 90 \\ 80 = 52 \quad 89.48 \\ 74 = 00 \\ 15 = 48 \\ 9 = 11 \\ 24 = 59 \\ 15 \text{ add} \end{array}$$

Tuesday April 14 = 1874

$$2 = 31 = 22 = 46 = 25$$

4:2

$$\begin{array}{r} 9 = 26 = 55 \\ 5 = 15 \\ 9 = 32 = 10 \\ 2 = 46 \\ 9 = 29 = 24 \end{array}$$

$$\begin{array}{r} 2 = 31 = 10 \quad 46 = 36 \\ 29 = 49 \quad 25 = 35 \quad 04481 \\ 15 = 00 = 59 \quad 80 = 50 \quad 00600 \\ 9 = 09 = 58 \quad 152 = 41 \quad 9,37341 \\ 5 = 51 = 01 \quad 76 = 20 \quad 9,69545 \\ 46 = 36 \quad 19,11967 \\ 29 = 44 \quad 9,55983 \\ 75 = 13 \\ 12 = 45 \\ 87 = 45 \end{array}$$

$$\begin{array}{r} 9 = 09 = 43 \\ 15 \\ 9 = 09 = 58 \end{array}$$

$$\begin{array}{r} 90 \\ 80 = 30 \quad 89.48 \\ 73 = 41 \\ 16 = 57 \\ 9 = 32 \\ 25 = 39 \end{array}$$

Wednesday April 15 = 1874

$$2 = 32 = 19 = 47 = 21$$

$$74 \quad 3,1$$

$$9 = 48 = 26$$

$$12 \quad 11$$

$$2 = 32 = 07 \quad 47 = 32$$

$$29 = 50$$

$$26 = 31$$

$$04827$$

$$00646$$

$$15 = 01 = 57$$

$$80 = 09$$

$$9 = 14 = 24$$

$$154 = 12$$

$$9,34879$$

$$5 = 47 = 33$$

$$77 = 06$$

$$9,69323$$

$$75$$

$$47 = 32$$

$$19,09474$$

$$11 = 45$$

$$29 = 34$$

$$9,54837$$

$$86 = 53$$

$$86 = 49$$

$$86 = 49$$

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$$86 = 49$$

$$86 = 49$$

Thursday April 16 = 1874

$$2 = 28 = 22 = 47 = 08$$

$$74 = 3,1$$

$$10 = 09 = 46$$

$$12 \quad 11$$

$$2 = 28 = 10 \quad 47 = 19$$

$$29 = 52$$

$$26 = 45$$

$$04884$$

$$00692$$

$$14 = 58 = 02$$

$$79 = 48$$

$$9,35590$$

$$9 = 12 = 36$$

$$153 = 47$$

$$9,69323$$

$$5 = 43 = 26$$

$$76 = 53$$

$$9,10489$$

$$75$$

$$47 = 19$$

$$9,55244$$

$$11 = 15$$

$$29 = 34$$

$$9 = 12 = 50$$

$$14$$

$$9 = 12 = 36$$

$$5 = 08$$

$$10 = 14 = 54$$

$$2 = 43$$

$$10 = 12 = 11$$

$$90$$

$$99 = 48$$

$$89 \quad 48$$

$$73 = 30$$

$$16 = 18$$

$$10 = 15$$

$$26 = 33$$

$$28 \text{ Sub}$$

Friday April 17 = 1874

$$86 = 23$$

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$$86 = 23$$

$$2 = 26 = 36 = 45 = 61$$

$$12 \quad 11$$

$$2 = 26 = 24 \quad 46 = 02$$

$$29 = 53$$

$$25 = 34$$

$$04475$$

$$00740$$

$$14 = 56 = 17$$

$$79 = 27$$

$$9,39811$$

$$9 = 42 = 38$$

$$151 = 03$$

$$9,69212$$

$$5 = 57 = 38$$

$$75 = 31$$

$$19,14238$$

$$75$$

$$46 = 02$$

$$9,57119$$

$$12 = 45$$

$$29 = 29$$

$$9 = 05 = 07$$

$$28$$

$$9 = 04 = 39$$

$$10 = 30 = 57$$

$$5 = 2$$

$$10 = 33 = 59$$

$$2 = 40$$

$$10 = 33 = 19$$

$$90$$

$$99 = 27$$

$$89 \quad 48$$

$$74 = 51$$

$$14 = 57$$

$$10 = 36$$

$$25 = 33$$

Saturday April 18 = 1874 =

$$\begin{array}{r} 90.00 \\ 11-15 \\ \hline 78=45 \end{array}$$

42 Sub

$$\begin{array}{r} 2=27=21=45=59 \\ 12 \quad 11 \end{array}$$

$$4,7 \quad 4,4$$

$$10=51=57$$

$$\begin{array}{r} 5-2 \\ 10=56=59 \\ 2=40 \end{array}$$

$$10=54=19$$

$$\begin{array}{r} 90 \\ 79=06 \end{array}$$

$$89-48$$

$$76=04$$

$$73=44$$

$$10=57$$

$$24=41$$

$$2=27=09 \quad 46=10$$

$$29=54 \quad 24=37$$

$$04138$$

$$14=57=08 \quad 79=06$$

$$00791$$

$$9=03=26 \quad 149=53$$

$$9,41488$$

$$5=53=37 \quad 74=56$$

$$9,68237 \quad 2$$

$$75- \quad 46=10$$

$$19,14654$$

$$13=15- \quad 28=46$$

$$9,57327$$

$$88=24$$

$$88=17$$

Sunday April 19 = 1874 =

$$2=31=40=48=10$$

$$7,7 \quad 2,3$$

$$2=31=28 \quad 48=21$$

$$29=56 \quad 25=42$$

$$04524$$

$$15=01=23 \quad 78=45$$

$$00843$$

$$9=13=21 \quad 15=2=48$$

$$9,57133$$

$$5=48=02 \quad 76=24$$

$$9,67232 \quad 1$$

$$75- \quad 48=21$$

$$19,09732$$

$$12=00 \quad 28=03$$

$$9,54866$$

$$87=00$$

$$86=52$$

$$2=29=37=48=37$$

$$15- \quad 11$$

$$2=29=22 \quad 48=48$$

$$29=56 \quad 26=23$$

$$14=59=18 \quad 78=24$$

$$9=16=8 \quad 15=3=35$$

$$5=44=10 \quad 76=47$$

$$48=48 \quad 9,35914$$

$$75- \quad 27=59$$

$$11=02 \quad 9,67137 \quad 2$$

$$86=02 \quad 19,08724$$

$$85=53 \quad 9,54362$$

Monday April 20 1874

$$8,6 \quad 2,6$$

$$11=33=25$$

$$4=55$$

$$11=38=20$$

$$2=36$$

$$11=35=44$$

$$90 \quad 78=24$$

$$89-48$$

$$75=05$$

$$74=43$$

$$11=38$$

$$26=21$$

$$9=16=16$$

$$1=8$$

$$9=15=08$$

1 = 08 Sub

Tuesday April 21 = 1874 =

$$\begin{array}{r} 90 \\ 12-16 \\ \hline 77-44 \end{array}$$

1 = 21 Sub

$$2 = 21 = 09 = 47 = 21$$

12

11

$$2 = 20 = 57 = 47 = 32$$

$$29 = 57$$

$$26 = 27$$

$$04802$$

$$14 = 50 = 54$$

$$78 = 04$$

$$00949$$

$$9 = 08 = 31$$

$$152 = 03$$

$$9.38317$$

$$5 = 42 = 23$$

$$76 = 01$$

$$9.67843$$

$$47 = 32$$

$$19.11911$$

$$28 = 29$$

$$9.55965$$

$$75 =$$

$$10 = 30$$

$$85 = 36$$

Wednesday April 22 =

$$2 = 20 = 30 = 47 = 08$$

12

11

$$2 = 20 = 18$$

$$47 = 19$$

$$6.7 \quad 4.7$$

$$29 = 58$$

$$25 = 36$$

$$04487$$

$$14 = 50 = 16$$

$$77 = 44$$

$$01603$$

$$9 = 06 = 52$$

$$150 = 39$$

$$9.40394$$

$$5 = 44 = 24$$

$$75 = 19$$

$$9.67161$$

$$47 = 19$$

$$1813045$$

$$28 = 00$$

$$9.56522$$

$$75 =$$

$$11 = 06$$

$$86 = 06$$

$$86 = 11$$

$$2 = 23 = 55 = 48 = 47$$

20

11

$$2 = 23 = 35 = 48 = 58$$

$$29 = 59$$

$$25 = 56$$

$$04609$$

$$14 = 53 = 34$$

$$77 = 24$$

$$01069$$

$$9 = 12 = 56$$

$$152 = 18$$

$$9.37909$$

$$5 = 40 = 38$$

$$76 = 09$$

$$9.65976$$

$$48 = 58$$

$$19.09553$$

$$75 =$$

$$10 = 09$$

$$27 = 11$$

$$9.54276$$

$$85 = 09$$

$$85 = 02$$

$$85 = 02$$

$$\begin{array}{r} 60.1 \\ 11-2 \\ \hline 85-2 \end{array}$$

$$11 = 53 = 52$$

$$4 = 55$$

$$11 = 58 = 47$$

$$2 = 36$$

$$11 = 56 = 11$$

$$90$$

$$78 = 64$$

$$89 = 48$$

$$75 = 20$$

$$14 = 28$$

$$11 = 59$$

$$26 = 27$$

1 = 33 Sub

$$12 = 14 = 07$$

$$4 = 55$$

$$12 = 19 = 02$$

$$2 = 36$$

$$90$$

$$77 = 44$$

$$89 = 48$$

$$76 = 37$$

$$13 = 11$$

$$12 = 19$$

$$25 = 30$$

1 = 45 Sub

$$12 = 34 = 09$$

$$4 = 47$$

$$12 = 38 = 56$$

$$2 = 32$$

$$90$$

$$77 = 24$$

$$89 = 48$$

$$76 = 33$$

$$13 = 10$$

$$12 = 39$$

$$25 = 54$$

$$9 = 14 = 41$$

$$1 = 45$$

$$9 = 12 = 56$$

